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FBI

Law Enforcement

BULLETIN



1953

FEBRUARY

Vol. 22 No. 2

Federal Bureau of Investigation
United States Department of Justice
J. Edgar Hoover, Director

FBI Law Enforcement Bulletin

FEBRUARY 1953

Vol. 22 No. 2

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The *FBI Law Enforcement Bulletin* is issued monthly to law-enforcement agencies throughout the United States. Much of the data appearing herein is of a confidential nature and its circulation should be restricted to law-enforcement officers; therefore, material contained in this Bulletin may not be reprinted without prior authorization by the Federal Bureau of Investigation.



Published by the **FEDERAL BUREAU OF INVESTIGATION, UNITED STATES DEPARTMENT OF JUSTICE, Washington, D. C.**



United States Department of Justice
Federal Bureau of Investigation
Washington 25, D. C.

February 1, 1953

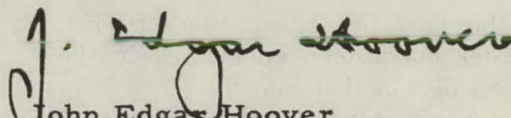
TO ALL LAW ENFORCEMENT OFFICIALS:

Preliminary figures indicate that crime and those who profit from it prospered in 1952. While we cannot blame any single cause for the higher rate of criminal offenses, I am convinced that there is a distinct relationship between this development and the number of police officers available to combat it.

One factor which undoubtedly contributes to the prosperity of the criminal element is a police pay scale too low to maintain law enforcement forces at full strength. An inadequate number of personnel was one of the most common conditions of 1952 in police agencies of various types and sizes across the nation. Manpower was spread too thinly and the criminal element moved in wherever a gap appeared. Attempts to recruit sufficient officers to effectively combat crime were often unsuccessful because the salary offered was too low to draw the quantity and quality of personnel needed.

Unwillingness to provide proper remuneration for the intelligence and effort required in the performance of modern police duties is a form of cut-rate law enforcement and it will not work. The logical result is a bigger crime bill in the form of murders, robberies and all the other manifold ways in which crime can be expensive. To pay the price in this fashion rather than in adequate salaries for police officers makes an extremely poor bargain.

Very truly yours,


John Edgar Hoover
Director



FEATURE ARTICLE

When the Kansas River and some of its tributaries rampaged over large areas of the midwest in the summer of 1951, thousands of Red Cross volunteers and staff disaster workers brought emergency relief and long-range rehabilitation assistance to 27,000 families flooded out by the raging waters at an expenditure of over \$14,300,000.

Red Cross preparations to render comparable services in the 1952 flood of the Missouri River were obviated by the valiant and successful labors of 19,000 levee workers to hold the dikes at the Omaha-Council Bluffs bottleneck, the point of greatest flood danger. During this emergency relief operation in seven States, the Red Cross sheltered 2,650 persons; provided round-the-clock medical and nursing services in its 66 shelters; fed 15,339 evacuees and hundreds of volunteers and dike workers; and helped to evacuate thousands from flooded and flood-threatened homes. Several thousand trained volunteers and 124 staff disaster workers served during the emergency period.

The Red Cross has recently been engaged in restoring to normal living approximately 2,200 families whose lives were shattered by the devastating eight-state tornadoes which struck the Central South in March 1952. A number of these persons, seriously injured, will need long-term medical treatment and care, which the Red Cross is underwriting where necessary.

These are three of the most recent major disasters of the nearly 5,000 domestic relief operations the American Red Cross can look back upon in the past seven decades of its career of mercy. Three months after Clara Barton founded "The American Association of the Red Cross Incorporated" in May 1881, the organization served in its first disaster operation—relief work in the Michigan forest fires of that summer.

Miss Barton's inspiration for the founding of the Red Cross was the Geneva Convention of 1864, providing for alleviation of the sufferings of soldiers wounded on the battlefield. But the agency's

Disaster Relief Is a National Service of the Red Cross¹

by WILLIAM R. BREYER, member of the public relations staff of the American National Red Cross

first 17 years were passed in a nation at peace; and in these years, virtually its entire activity was in combating the effects of domestic catastrophes. The biggest of these were floods, notably the Johnstown, Pa., flood of 1889, when the Red Cross inaugurated its practice of providing rehabilitation as well as temporary mass shelter for the homeless.

A Charter Responsibility

By 1905, Red Cross disaster relief was so deeply entrenched in American life that this function was written into its congressional charter, re-drafted and revised that year and adopted by the national legislature. This charter, and three major responsibilities imposed by it, give the Red Cross its unique status among welfare organizations as a quasi-governmental agency. Two of these responsibilities are its services to the armed forces of the United States and its international activities.

The other is disaster relief.

The charter clause which makes the Red Cross, by act of Congress, the Nation's official disaster relief agency, *requires* it "to continue and carry on a system of national and international relief in time of peace and apply the same in mitigating the sufferings caused by pestilence, famine, fire, floods, and other great national calamities, and to devise and carry on measures for preventing the same."

The compulsory nature of this clause distinguishes the Red Cross from the many other privately supported organizations which also help in disasters. They may or may not serve, as they elect; the Red Cross "must."

¹ Law enforcement officers who are preparing plans for police work during disasters will find in this article an analysis of how the Red Cross works and the functions which it may be expected to perform during and after the catastrophe. This information may be of assistance in developing a more closely coordinated and effective plan of action.

The Red Cross acceptance of this responsibility has resulted in the achievement of the extraordinary so often that the extraordinary has become the commonplace.

From repeated performance there has evolved a scheme of preparedness for disaster so elastic that it can encompass catastrophe of any type and any magnitude. The scheme envisions utilization in disaster relief operations, if necessary, of virtually every one of the 20-odd different programs of service carried on the year around by the 1,650,000 volunteers in the 3,700 chapters (the local units) of the Red Cross. Each program has its place in meeting normal, day-to-day, community or national needs. Each one also serves as a training field for disaster workers and keeps the chapter volunteers in trim for the tasks they may be called upon to perform under pressure in emergencies.

The Chapter Disaster Committee

In the Red Cross chapter, disaster preparedness is the responsibility of the standing disaster committee. Its functions are allotted to subcommittees whose titles indicate the scope and nature of Red Cross disaster relief activity:

Survey (to determine extent of disaster and human needs caused thereby); warning, rescue, and evacuation; transportation and communications; shelter; food; clothing; medical and nursing aid; blood procurement; central purchase and supply; registration and information (which serves as a clearinghouse for information on victims and is used by Red Cross workers both to extend relief to the stricken and furnish intelligence on them to anxious relatives and friends); and public information (whose functions include that of informing victims, through press, radio, television, and posters, what Red Cross services are available to them and where).

In devising its plan for meeting disaster-caused needs, the committee's initial task is to determine whether there is any special disaster hazard to which its territory may be susceptible. The chapter may be in a region often subject to tornadoes or to tropical hurricanes; it may have a stretch of highway dangerous to motor traffic; it may be located on a river seasonally subject to floods. The committee next formulates plans adapted to the requirements for meeting each type of disaster which might be considered a possible hazard, as



Creve Coeur, Mo., July 1951: Young Martin Harris gets a lift into a Coast Guard boat during an evacuation operation by the St. Louis Red Cross Chapter and the U. S. Coast Guard during the big midwestern flood.

well as over-all planning for unpredictable catastrophes.

Subcommittee members are selected for specialized knowledge of the tasks they may be called upon to perform. For example, the food and clothing subcommittees usually include executives dealing in these commodities. Then, if supplies of either are needed rapidly, the community's available sources can be utilized without delay. Also on these two subcommittees are, respectively, the volunteer chairmen of the chapter's canteen and production services.

The Red Cross does not stockpile large quantities of relief supplies for anticipated disaster needs; instead, purchases are made at the locale of the disaster. Only such nonexpendable items as cots and blankets are kept on hand in quantity. This practice permits acquisition of just what is needed when it is needed. It also eliminates the expense of storage, the problem of large-scale transportation and consequent delay from remote warehouse to disaster scene, and avoids possible deterioration.

RED CROSS ACT

Under Title 18, United States Code, Sections 706 and 917, it is a violation of Federal law for any person to (1) falsely or fraudulently represent or pretend to be a member of or an agent for the American National Red Cross for the purposes of (a) soliciting, (b) collecting, or (c) receiving any money or material; or (2) wear or display the sign of the Red Cross or any insignia colored in imitation thereof for the fraudulent purpose of inducing the belief that he is a member of or an agent for the American National Red Cross; or (3) use the emblem of the Greek red cross on a white ground, or any sign or insignia made or colored in imitation thereof. Use of the words "Red Cross" or "Geneva Cross" or any combination of these words, by any corporation, association, or person other than the American National Red Cross and its duly authorized employees and agents and the sanitary and hospital authorities of the Armed Forces of the United States is also prohibited.

Investigative jurisdiction over the Federal violation is vested in the FBI.

Most important of all, purchase on the spot enables the Red Cross to assist in the restoration of a stricken community's disrupted economy and helps merchants return to normal commercial traffic. Consequently, the Red Cross discourages large gifts-in-kind. For example, uncontrolled public generosity in donating clothing (which the Red Cross provides by local purchase) to a disaster-stricken community would curtail the business of local clothing merchants for many months and add to the distressed community's disaster-caused dislocations.

Not the Whole Show

In no disaster relief operation is the Red Cross the whole show. Its disaster plans are formulated in consultation and cooperation with local government officials, such as the mayor's office, police department and sheriff's office, fire and health departments. Departments of local, State, and Federal Government (often all three in the same catastrophe) play indispensable roles in alleviating the effects of disasters; hence, their cooperation in preparing for calamity is indispensable, too.

How important this cooperation between the Red Cross and Government is may be seen from experiences gained in the great northwest floods of the spring of 1948, at Vanport, Oreg. Sixty-one different agencies, groups of agencies and business firms gave assistance besides the Red Cross—among them 33 units of local, State, and Federal Government. Sheriffs and other officials of affected counties, working with the utmost efficiency, were instrumental in keeping loss of life extremely low considering the gravity of the disaster. State police also did yeoman service in the Vanport flood.

Several Fields

There are several fields of disaster activities for which Government agencies are responsible. These are:

(a) Protection of persons and property: (1) warning of impending danger; (2) enforced evacuation; (3) rescue; (4) maintenance of law and order; (5) fire precautions and protection; (6) designation of hazardous buildings and areas; (7) public health and sanitation—water supply, biologicals, and control of communicable diseases; (8) care of the dead; and (9) traffic control.

(b) Provision of usual services: (1) welfare and health; (2) public institutions; (3) public transportation; (4) public communication; (5) removal of debris from public property; (6) salvage of unclaimed property; and (7) inspection of buildings for safety.

(c) Restoration of public property—public buildings, sewage systems, water systems, streets and highways, and other public projects.

Red Cross in Civil Defense

The Red Cross cooperates closely with Civil Defense authorities locally and on State-wide and national levels. In the spring of 1950, an agreement was reached with the National Security Resources Board as to the role of the Red Cross in civil defense. A statement embodying this agreement was issued on May 18, 1950, as a Civil Defense Advisory Bulletin.

After pointing out the part played historically by the Red Cross in peacetime disaster relief, the statement said:

The protection and care of families and individuals subjected to enemy attack is a basic responsibility of all governmental groups. It is expected that volunteer

agencies participating in civil defense, including the Red Cross, will serve under the general direction of responsible governmental agencies. Because of limited funds and facilities and the magnitude of the problems that arise in war disasters, the American Red Cross cannot be expected to assume responsibility to the extent that it does in natural disasters.

However, the experiences and resources of the Red Cross in its disaster program and other community services programs can be utilized to advantage by the government in planning and operation of civil defense. Because of its existing organization and long experience in national disaster relief activities, Red Cross representation on State and local civil defense planning groups should be encouraged.

The American Red Cross has agreed to assist to the extent of its ability in the development and operation of a program of civil defense on national, State, and local levels, in the following specified phases:

- (a) Training civil-defense workers and the general public in first aid;
- (b) Training in home care of the sick and injured, and volunteer nurse's aid activities;
- (c) Provision of food, clothing, and temporary shelter on a mass care basis during an immediate emergency period;
- (d) Participation in a wartime Nation-wide blood program; and
- (e) Making available its existing organized chapter volunteers and resources for participation in civil defense activities.

Chapters participate in the mass care phase of civil defense in various ways. Some chapters have been assigned responsibility by local civil-defense authorities to plan and develop the necessary organization to provide food, clothing, and shelter on a mass care basis. Others have been asked to assist by naming chapter representatives to serve on civil-defense committees or in key positions in the civil-defense organization. Other instances of chapter participation include conducting extensive surveys of mass shelter and feeding facilities for civil defense, and training personnel to operate mass shelters.

Other Organizations Serve, Too

Many nongovernmental organizations also serve in disasters in cooperation with the Red Cross: civic clubs, labor unions, trade associations, patriotic organizations, social agencies.

One organization might be singled out for special mention because its purposes include specifically that of service in disaster and because its cooperative arrangements with the Red Cross have been put on a systematized, year-round basis in Red Cross national and area offices and in many chapters as well.



Fayetteville, Tenn., March 1952: a Red Cross building estimator discusses the amount of assistance this family will need to rebuild their house, destroyed by a tornado.

That is the American Radio Relay League, which numbers in its membership upwards of 50,000 of the Nation's 110,000 licensed amateur radio operators. Members of the league have provided emergency communications in disasters since 1914; about 20,000 now specialize in this phase of "ham" radio work.

As the number of amateur, short-wave radio operators increased and their equipment improved with new discoveries in electronics, their work in disasters became increasingly effective—especially valuable in such widespread catastrophes as the Ohio Valley floods of 1936 and 1937, the 1938 New York-New England hurricane, the 1947 Texas City explosion and New England forest fires, and the 1951 midwestern flood.

Since World War II, closer ties have been formed with ham operators and the Red Cross to assure reliable communications in disasters. Now, three short-wave amateur stations working with the Red Cross have been established in Washington, Evanston, Ill., and San Francisco. They are connected directly with the Red Cross leased-wire telecommunications network, so that they can feed into and transmit from this network messages from and to disaster areas.



Texas City, Tex., April 1947: volunteers for work with the Red Cross serve coffee and cigarettes to rescue crews at an improvised relief station hastily set up after an explosion rocked the city.

In addition, many large chapters have installed amateur stations on their premises, capable of communicating with fixed and mobile stations of the national emergency radio network. Many other chapters have added ham operators to their disaster communications subcommittees. This latter type of arrangement worked effectively in the tornado at Fayetteville, Tenn., in February 1952.

The Red Cross Operation

Structurally, the American Red Cross is composed of 3,700 chapters, serving every county in the United States. There are four area offices in San Francisco, St. Louis, Atlanta, and Alexandria, Va., with national headquarters at Washington.

A chapter in whose territory disaster has struck is expected to notify its area office immediately. Without delaying its own relief activities, it is supposed to supplement the original notification as soon as feasible with a second message on the extent of the disaster and the needs of the stricken locality.

If the emergency is too great for the resources and personnel, mostly volunteer, of the local Red Cross unit and its neighboring chapters (whose resources are available also under a mutual-aid arrangement among Red Cross chapters), disaster workers are sent in from the Red Cross area office or from national headquarters. These include

members of area and national disaster staffs and other full-time Red Cross personnel as well.

An additional source of trained workers is the organization's roster of disaster reserves. These are persons experienced in disaster work, but not on the full-time Red Cross staff, who have signified their availability and willingness to accept temporary relief assignments in emergencies. They include nurses and social workers who have retired to domestic life, physicians, and a wide variety of individuals in other professional and business fields.

When the Missouri Valley flood of 1952 followed directly on the heels of the eight-State southern tornadoes, trained full-time workers and reserves were summoned to the Middle West from Washington and from all four area offices as well.

Red Cross services in a disaster fall into two phases: the emergency period, which may end in a matter of hours or may last several days or weeks, depending on the nature of the catastrophe; and the post-emergency period, when rehabilitation gets underway.

During the emergency period Red Cross functions are: (1) to assist municipal and other governmental authorities in warning, rescuing, and evacuating threatened persons from the danger zone; (2) to provide and staff temporary shelters for those displaced from their homes; (3) to procure blood for the injured; (4) to administer first aid to the injured; (5) to provide subsequent professional medical and nursing care for the injured, sick, and helpless; (6) to provide clothing for victims as needed; (7) to feed disaster victims and relief workers; and (8) to develop and maintain a registry of families who may need assistance and to answer welfare inquiries.

A parallel responsibility of the Red Cross, both during this period and during the post-emergency phase of the relief operation, is to let affected individuals know, through every medium of communication available, how and where these services can be obtained without cost by those in need of them.

Red Cross Rehabilitation Aid

The post-emergency phase of Red Cross disaster relief operations is the rehabilitation period. Rehabilitation may include rebuilding and repair of destroyed or damaged homes; replacement or repair of furniture, house furnishings, and clothing; replacement of farm equipment, supplies, and

livestock; provision of long-term medical and nursing care for persons seriously injured; and occupational training for persons whose injuries prevent their return to previous means of livelihood.

Because the cost of replacing disaster-caused losses 100 percent would be prohibitive, Red Cross rehabilitation assistance is provided on the basis of need rather than loss. It is intended to supplement the disaster victim's own resources, such as cash, credit, earning power, or insurance, when those resources can be used without undue hardship. (In contrast to this policy, emergency aid, during the first few hours of a disaster, is given to all who apply for it without regard to the victims' own resources.)

Since need is the determining factor on which rehabilitation help is granted, each family's request is appraised on an individual and confidential basis; and the proposed award is usually reviewed by a local committee familiar with economic conditions and standards of living within the community.

Such assistance is always an outright grant—never a loan.

A typical case of disaster rehabilitation was that of a Kansas truck driver, head of a family of four, whose four-room house was swept from its foundation and splintered against a tree in the great flood of June and July 1951. The home owner obtained a \$1,500 Government loan. The Red Cross provided a grant of \$1,900 to make up the remaining cost of financing a new home of the same size and, in addition, provided some essential household furnishings to replace those the family could not salvage from the wreckage.

More unusual was the case of a blind musician in another city struck by the flood. He made his living as the proprietor of a small orchestra playing at a local night club. A fire, which followed the flood, destroyed the night club, and the orchestra's musical instruments, amplifying equipment and other "props." The club's insurance did not cover the band-leader's property, loss of which deprived him of a means of livelihood. The Red Cross replaced the instruments and other paraphernalia, thus restoring the musician's earning capacity.

Some communities may go for many years without suffering a disaster. This may lead to a sense of false security or an "it can't happen here" attitude, particularly in those areas in which there are no serious disaster hazards.

To keep the disaster plans of all chapters and, particularly those in localities long free from calamity, flexible and up to date, the Red Cross area offices periodically conduct disaster institutes for groups of chapters. At these refresher courses, planning is reviewed and chapters are encouraged to reactivate their disaster committees, fill vacancies, and otherwise inject new blood.

The people of the United States are the Red Cross. With their support, as individuals and as members of other organizations and professional groups, the Red Cross will continue to meet its charter obligation as the nation's official disaster relief agency.

Spokane Includes Amateur Radio in Disaster Plans

Disaster plans for use in a local or national emergency are incomplete unless they provide for a lifeline of communications through the stricken area and to the outside. Ingenuity is valuable here because the usual facilities may break down entirely. Broken lines and power failures can put both wire systems and wireless out of use.

In Spokane, Wash., Chief of Police Clyde E. Phelps and Patrolman George M. Scotten, Jr., have set up an emergency communications system which is not dependent on either wires or the usual sources of electric power. It is a network of approximately 200 local "ham" radio operators, each with a transmitting and receiving apparatus in his own home. Many of these operators also have independently powered mobile transmitters and receivers in their automobiles.

Over 50 "ham radio" mobile units have checked in to Spokane's local emergency net every Tuesday evening for the past 2 years. As his station was called, each in turn would answer to the following:

This is W7FQS, net control station (or W7NXN, alternate control station) of the Spokane, Wash., section of the ARPL emergency corps. This net may be joined by any licensed amateur in the area. Your only requirement is a valid amateur operator's license and a desire to serve your community in times of disaster. This net checks in promptly at 7:30 p. m., every Tuesday on a frequency of 29,600 kilocycles. Roll will be called as of last week's net and any new stations will then be added and given an active part in future drills. Stand by for roll call.

The experience gained from these practice drills of message handling, running down "hidden transmitters," and assisting local police in handling "spooks" and small boys on Hallowe'en can be put to more practical use in the event of an emergency.



Wyoming Highway Patrol Installs FM Radio System

*by WILLIAM R. BRADLEY, Captain, Wyoming
Highway Patrol and State Motor Vehicle
Director*

The Wyoming Highway Patrol, in conjunction with the Wyoming Highway Department, has taken progressive steps to improve radio communications. A new FM system recently purchased from a leading manufacturer on a low bid of \$279,768.65 is unique in that it is an interlocking double channel outfit designed to give telephonic quality to radio communication in both the maintenance department and the highway patrol. This new system will allow mobile equipment, through the installation of only one radio unit per vehicle, to receive on one frequency and transmit on two frequencies, thus providing for cross channel communications between maintenance and patrol in cases of emergency, and still allowing one department to operate its regular business on its own frequency without interference from the other. Insofar as we have learned, Wyoming's new radio system is the first of its kind. No other system in use at the present time by a State department gives the over-all flexibility and control afforded by this new setup.

In 1940, a single channel AM network was installed for use by both the maintenance department and the highway patrol. Fourteen dispatch stations were operated, some by maintenance personnel, some by highway patrol officers, and some by city police or county sheriffs whose offices were serviced by the highway radio system. With the passage of years, use of the highway network increased; more service was given and demanded by the public. The increasing traffic loads on the highways created greater demands for radio service from maintenance and patrol alike. Each year it became more apparent that the AM network, as it was being operated, was inadequate to handle the demands placed upon it. Since the equipment was rapidly becoming obsolete, and a maintenance problem, an investigation of different types of radio was planned to see if a change should be made or if new equipment of the same type being used should be purchased.

In the spring of 1950, the Wyoming Highway Department sent a questionnaire to each highway department of the other 47 States. Fourteen questions were asked ranging from questions on the type of radio used to methods of financing and control. The response was excellent. Answers were received from 45 States, many of which gave extensive data on the type of radio being operated by their department. All but three replied that they considered FM superior to AM, and these three States qualified their answers by stating that AM was superior for talk-out and long distance station to station work under favorable weather but that FM excelled in talk-back and work of a localized nature performed by mobile units. As a result of this questionnaire, a summary was made and we reached the following conclusions:

1. FM is more satisfactory than AM for general use by highway departments and State police.
2. A single channel, servicing both maintenance and patrol, is desirable where the demand is not too great or where neither agency wishes unrestricted use of the frequency. The use of separate channels is desirable when the maintenance and engineering divisions wish to transact any appreciable amount of their business by radio instead of by mail, telephone, telegraph, or teletype, or the patrol organization is large enough to demand a large percentage of the broadcast time.
3. The highway department or patrol should own, operate, and maintain its own system. Where there is joint ownership, each should participate in the cost of operation and maintenance in proportion to the use.
4. Radios should not be furnished on a free basis to any outside agency and the State should not participate in the salaries of those operating radios for said agencies. If the operation of radio by county sheriffs' offices, city police, county highway commissions or some similar unit of government is an asset or necessity to efficient and

coordinated functioning by either the patrol or highway department, it may be advisable to maintain their equipment and provide them with radios on a rental basis.

5. Daily road condition reports are necessary only during the winter months and in bad weather. The reports should be made by local maintenance men or patrolmen, transmitted to a central office for tabulation, then redistributed to the local offices for release to the general public.

6. Stations operated for law enforcement purposes should be on a 24-hour schedule wherever possible with a minimum schedule of 18 hours covering the period of 8 a. m. to 2 a. m. The hours of operation for regular maintenance work were proposed to be from 7 a. m. to 5:30 p. m.

The analysis proved to our satisfaction that the ideal system for highway departments appeared to be a system thoroughly investigated and engineered before installation by a competent radio engineer, preferably an employee of the department itself, and owned, operated, and maintained by the department. The entire system would be planned in advance and installed complete. Cooperation would exist between the police frequency and the highway frequency.

The questionnaire and the conclusions are mentioned because it is remarkable to note how closely Wyoming's new FM system comes to meeting the ideal radio system as conceived from suggestions made by the 45 responding State highway departments and State police organizations.

Other Considerations

There were several other reasons for Wyoming's decision to switch from AM to FM type radio. An increasing amount of electrical interference was ruining reception of radio transmissions over the AM frequency. The Rural Electrification program and the construction of power facilities from various Bureau of Reclamation projects were lining mile after mile of highways with high voltage transmission equipment which caused serious interference or entirely prevented the use of mobile radio. This type of electrical emission by power welders, motors, transmission lines, etc., so damaging to the lower frequency AM, does not appreciably affect frequencies in the 40 to 50 megacycle band used by FM equipment.

Heat, snow, rain, or fog often caused static conditions which made radio contact impossible on the AM system. Sunspots would often jam the



Personnel of the Wyoming Highway Patrol radio system. Left to right: John T. Roberts, Chief Radio Technician; T. D. Sherard, Head of the Communications Division; G. T. Shrum, Assistant Maintenance and Equipment Engineer; Captain William R. Bradley and Al C. Morgan, Senior Radio Technician.

air with static for days at a time. These conditions are mostly eliminated in the FM frequencies.

Contacts were very undependable on the AM network. On a cold winter evening, it was quite possible for a car in one end of the State to converse directly with a car 400 or more miles away. This was always a cause for much comment and boasting, but the net result was that two units in the State would monopolize the entire network so that no business could be transacted by anyone other than the unit broadcasting. On the other hand, on hot summer afternoons, static conditions were often such that contacts could not be made over a distance greater than three or four miles. A station or mobile unit could never depend on being able to contact any other station or mobile unit because of the great fluctuations in reception.

It is well known that the higher frequencies are much more stable and give more definite reception patterns. The more localized reception made necessary by the new system is desirable in that more than one unit in different areas of the State can transact business simultaneously without interference to each other.

It is believed that cost and maintenance of FM radio equipment are cheaper than AM. FM equipment and parts are manufactured by many companies, whereas AM must be bought more or less on special order. Due to the higher power used by AM stations, more parts replacement and maintenance are necessary. For example, under the old system the Cheyenne station transmitted on



Jackson, Wyo., seen from the test site on Snow King Mountain.

5000 watts, whereas under the new system, the transmitter will only require 250 watts.

Site Survey

When final decision was made to revise the present radio network, a tremendous amount of work and some expense were necessary before calling for bids on new equipment. The department conducted its own survey. FM radio test equipment was borrowed from three outstanding manufacturers and a temporary test frequency of 47.22 megacycles was obtained from the FCC. The test equipment included 30-, 50-, and 60-watt gear. Wide band and narrow band were included in the test. It was decided that all tests should be made at minimum potential. Where a 100-foot tower was anticipated for actual operation, a 40-foot tower was used in testing. A 60-watt station was used on the survey where a 250-watt would be installed in the final network. The mobile test sets were 30-watt units instead of the 60-watt units anticipated for actual use. It was felt that if a workable network could be based on this type of equipment, there would be no doubt that a system set up to recognized standards would guarantee the needed performance. Instead of looking for the highest points and then searching for available power and roads, we first decided in what area the broadcast station should be located, and then picked the highest accessible point with readily available power. After choosing such a site, a 40-foot tower was erected, a 60-watt transmitter connected and field tests begun. Three and sometimes four cars equipped with 30-watt mobile sets drove every mile of highway within broadcast radius of the test station. Continual talk, back and forth from these cars, was carried on, espe-

cially from canyon areas, low spots or other locations deemed to be the most difficult to cover, and logs were kept on this, showing time and text of message and strength and readability of signals. From the first, it was apparent that the "line of sight" theory could be discarded. Excellent contacts were made from numerous spots previously tabbed as "impossible." In several instances, contacts were made between units at about 5,000 feet elevation where the signal was required to cross divides of from 10,000 to 12,000 feet high. The further the survey progressed, the more it appeared that the State of Wyoming, with its alternating valleys, plains, and mountains, was ideal for FM broadcast. Whereas many of the canyon roads were shadowed or shielded from radio waves when a mountain-top site was used, it was found that radio waves beamed at the face of the mountain generally eliminated dead spots and gave better reception than open highway. This was attributed to the bouncing of the signal back and forth between canyon walls. We attempted to obtain an overlap between stations without getting excessive duplication of signal.

The survey cost very little in proportion to the total cost of the project. About \$3,000 was expended for the test. This is quite remarkable in view of the fact that some States paid up to six and seven times that much to a contractor to set up a system only to find out later that it was not properly engineered. While the engineering of Wyoming's system is yet to be proved, it is our definite opinion that an actual field survey is the only way to properly plan a radio system.

Type of Network

After the field survey was completed, the next step was deciding on the type of network desired. Many obstacles were encountered before the contract was awarded. The main question was whether there should be one channel as previously used or separate channels for maintenance and patrol. The writer maintained that it was essential to his department to have the local law enforcement agencies included in the network. The chief maintenance engineer, although in favor of a single channel restricted to the sole use by the highway department, agreed to separate channels and specifications and plans were drawn up. The first plans made no provisions for cross-channel communication between maintenance and patrol. This was later included but not before the radio

manufacturers made tests to determine if the type of cross-channel communication desired was possible to achieve. The engineering services graciously given by the several radio manufacturers were very valuable and greatly appreciated. It is well to know that any department desiring technical help on radio problems may consult the outstanding manufacturers and avail themselves of the services of highly qualified engineers.

The new FM radio network in Wyoming has two frequencies. The 42.82-megacycle channel is for use by the highway patrol and other law enforcement agencies on a State-wide police network. Patrol cars are equipped with a mobile radio unit containing two 30-watt transmitters and one receiver. The results of the survey showed such good coverage patterns that it was decided to use 30-watt mobile transmitters instead of the 60-watt ones first thought necessary. The receiver is tuned only to the patrol channel, but in addition to the regular patrol transmitter there is another transmitter on the maintenance band which can be switched on when needed. Similarly, maintenance department vehicles are equipped with one receiver and one transmitter on their own frequency, which is 47.22 megacycles, and an additional transmitter on the patrol channel. If a patrolman wishes to contact a maintenance vehicle, he may switch to his maintenance transmitter and call. The maintenance vehicle receives on his regular frequency but must switch over to his patrol transmitter in order to talk back. These change-overs can be made simply and quickly with a toggle switch located on the control panel. The 4.4-megacycle separation between the two frequencies will keep receiver desensitization by the other frequency to a minimum.

An interesting feature of the highway patrol channel is the manner by which participation is allowed to other law enforcement agencies. All equipment is purchased, owned and maintained by the highway department. Dispatch stations operated by local police or sheriffs' offices are furnished free of charge but owned and maintained by the State in return for operating services. These stations must be available to highway personnel at all hours of the day and night. Mobile sets are rented to local law enforcement agencies at a monthly charge of \$25 per unit. The State will maintain and replace these units when necessary. These sets are built for operation on the patrol frequency only and do not afford cross-channel communication with the maintenance de-



New type FM dome-mounted antenna.

partment. The maintenance department will operate their dispatch stations with department employees. The 10 fixed broadcast stations are 250-watt stations housed in 10- by 14-foot concrete block buildings. One-hundred-foot steel towers are used for all fixed stations except Casper Mountain where there is a 150-foot tower. These fixed stations operate from approximately 39 control points, 22 localized points in 20 counties dispatching 91 mobile units of the patrol and sheriffs' offices, and 17 control points dispatching approximately 80 mobile units of the maintenance department. In addition to this, four cities—Casper, Laramie, Rawlins and Rock Springs, will each maintain a control point on a separate frequency for dispatching local police cars.

Specifications of the system deal mostly with electrical performance and are too lengthy to go into at this time. A valuable and important feature of the new system is the magnitude allowed for future expansion. Although two frequencies are all which will be used for State coverage at present, all equipment is of the wide channel or 40-kilocycle width band type which has been designed to allow future splitting of the bands into four narrow 20-kilocycle width bands at very little additional cost. This feature, although seemingly not too important now, may sometime be necessary. The system has also been engineered so that loss of regular power would only temporarily stop operation. State-wide radio communication could be resumed almost immediately by mobile sets operating as power or relay stations from the fixed station sites. One frequency (or both, if necessary) will be immediately available for national emergency.

(Continued on page 16)



TRAFFIC

Clutch Riders Club Stages Road Safety Test for Motorists¹

The young men and women of the Orland Clutch Riders Club have little admiration for a driver who pushes a gas pedal to the floorboard to show off the speed of an automobile. To them, the "killer-diller" thrills of racing on streets and highways do not afford a true outlet for pent-up competitive energies or for genuine sportsmanship.

What really takes headwork, steady nerves and driving know-how, they have learned, is to operate an automobile over a course in the best legal time, within proper speed limits and in obedience to all traffic laws and safety rules. This was their reason for conducting the 93.8 mile safety and reliability road run last March under the sponsorship of the California Highway Patrol.

It was the first event of its kind held in northern California. Open to the general public, 41 teenagers and grown-ups competed under the same road rules to prove their safe driving ability.

All entrants wanted to make "par"—the exact legal time set for the course by the highway patrol. Winners were those drivers who came closest to this time, which was kept secret until the last contestant crossed the finish line.

The patrol's legal time for the run of 93.8 miles was 1 hour, 57 minutes, and 20 seconds. In the Orland run, youths studying driving but under legal vehicle-operating age were permitted to enter an automobile in the contest with a driver of legal age (usually father or mother) at the wheel.

The interest and excitement of the day-long rally at Spence Municipal Park in Orland reached its peak in mid-afternoon with the announcement of the over-all winner and of the winners in the three groups of contestants—young men, young women, and adults.

The grand prize and the trophy award in the young men's classification went to 17-year-old William Lathrop of Orland, a member of the Clutch Riders Club. Among the hard-striving contestants from Chico, Marysville, Willows and his home town who did their utmost to make par for the circuit, it was Lathrop and his navigator,

Frank Aguiar, who came closest to it. Their time was 1 hour, 57 minutes, and 15 seconds—5 seconds under the legal time set for the course by the highway patrol.

Two additional trophies were awarded as top prizes to the persons coming closest to the legal time in the other two groups of participants.

Winner in the adult group was T. O. Ainsworth, automobile dealer from Willows. His time was 1 hour, 57 minutes and 45 seconds—25 seconds over par for the course.

Winner in the young women's group was Gerry Zagar with Eileen Snyder at the wheel. The time made by this team of Orland girls was 2 hours, 4 minutes, and 55 seconds—7 minutes and 35 seconds over the course time.

Second and third place winners in the three classifications were: Young men, Richard Johnson and James Clemens, both of Chico; young women, Frances Pratt and Katherine Adragna, both of Orland; adults, Thomas J. Macy and John Karamatic, both of Orland.

The average time for all the contestants was 2 hours and 5 minutes—7 minutes and 40 seconds over par. More significant, however, was the fact that no driver was automatically dropped from consideration for being 10 minutes or more below the legal time—in other words, for driving too fast.

When Highway Patrolman Leon Walters, who supervised the event, presented the awards, he said:

It's impressive to note that an alert youth took top honors in this run. At first, I wasn't sure grown-ups should be allowed to get in it, but these young folks wanted to show that they were just as careful and skillful drivers as adults. This is proof of it.

Among other things the run proved to the participants and to more than a hundred spectators was that the contestants made excellent time over the circuit without a sign of "speed fatigue." Above all, the time it took to drive the course

¹From *Motorland*, published by the California State Automobile Association.

within all speed limits was only slightly longer than would have been the case had the drivers disregarded speed limits, thrown safety to the winds and driven at 70- or 80-miles-an-hour spurts whenever opportunity afforded.

Planning and direction of the event were in charge of James Morehouse, president, and Russell Marshall, vice president, of the Orland Clutch Riders Club. Check-up of the cars entered in the run began at 9:30 a. m. Equipment on the cars, such as brakes, lights, horns and tires, had to be legal and standard. They were thoroughly inspected and tested. Drivers had to produce valid operators' licenses.

Contestants were instructed that the first rule of the run was courtesy. They were not to interfere with the flow of traffic and were expected to help any motorist who was in trouble. Minutes and seconds consumed in aiding a motorist were to be recorded and deducted from the contestant's time in making the circuit. Also, the time a driver was delayed by a train or any obstruction on the highway could be deducted.

Beginning at 10 o'clock, the entry cars began leaving the starting point at 3- to 5-minute intervals to keep from flocking on the highway. As they left, the drivers were given a road map showing the course over which the run was to be made. The circuit was from Orland east on State Highway 32 to Chico, thence by the direct route to Oroville, then west to Highway 99E at Richvale and back on 99E to Chico and over Route 32 to Orland.

Highway patrolmen covered the course, acting as checkers. They reported no serious traffic violations. However, some of the drivers missed a sign on a bridge near Oroville which limited speed to 10 miles an hour. One contestant who observed the bridge speed limit reported that a boy on a bicycle passed him.

Russell Marshall put in 27 minutes of his time helping a stalled motorist. Dick Siemens, the only participant who did not have a navigator, missed the turn in Oroville and found himself in Marysville. He took 3 hours, 34 minutes, and 35 seconds for the run.

The contestants substantiated Patrolman Walters' contention that this type of safety and reliability road run is as exciting as any race. Lathrop, the grand prize winner, and Eileen Snyder, who drove Miss Zagar's winning car in the young women's classification, both said the event was lots of fun and good experience. Mr. Ainsworth, winner in the adult classification, confirmed



Contest winners (left to right): Gerry Zagar, Eileen Snyder, T. O. Ainsworth and William Lathrop are congratulated by Patrolman Leon Walters.

the fact that young people are tough competition when it comes to expert legal motorcar operation.

Before the Clutch Riders Club was organized in Orland on December 12, 1951, many of the young people in the area drove their cars with illegal equipment on them. They thought speeding, squealing the tires and "growling the pipes" were the marks of a sporty driver. It was considered "smart" to give traffic officers the run-around. Accidents and traffic violations were frequent.

Patrolman Walters found he was getting nowhere by harassing the young drivers with constant surveillance and arrests, so he decided on a different approach. He sought them out and talked to them about organizing a club. The idea clicked. "There are considerably less accidents and I seldom have to issue a citation or make an arrest now among young people," Patrolman Walters said.

The success of the Orland club has spurred the organization of similar clubs in other valley towns—Chico, Marysville, Yuba City, Princeton, and Redding. Members of the "Marysville Modifieds" were entered in the Orland safety and reliability run.

Patrolman Walters feels that young drivers' clubs rank in importance with driver education and behind-the-wheel training in high schools and should receive public and civic support. He said:

Enthusiasm and eagerness to do the right thing exist in all these young people, wherever they are. Help them to have proper outlets for their urges and they will show us up every time. I have a chance to teach teen-age drivers more traffic regulations and safety rules in their clubs than any other way. One thing is certain, you cannot do it by playing "cops and hot-rodders" with them.

FIREARMS TRAINING



For the past 20 years the pistol tournament has been a popular event at the annual convention of the Minnesota Police and Peace Officers Association. This shoot is open to any full-time law enforcement officer whether municipal, county, State or Federal, who is regularly employed in the State of Minnesota and is a member of the association. Interest in the shoot has grown steadily. Credit for building this event to its present status and popularity should go to Fred Odegard, captain of police, Hibbing, Minn., who was chairman of the shoot committee until 1952.

Portable Range

The annual convention is held in a different city each year. None of the cities where it is held have adequate range facilities to handle a shoot of this size. This condition, together with the fact that the number of shooters desiring to participate has increased each year, made it necessary for the association to design and construct a completely



Capt. Robert S. Titus.

Minnesota Officers Hold Pistol Shoot During Conventions

by ROBERT S. TITUS, *Captain of Police, Brainerd, Minn., and Chairman of the Shoot Committee*

portable range. During the summer of 1947, Fred Odegard and Ira Kritz, both of the Hibbing Police Department, designed and built a portable range of twenty swinging targets with controls. The following year four more targets were added and a trailer was constructed for transporting the entire unit to any convention city. The accompanying photos show the range erected, as well as loaded on the trailer.

It Pays Dividends

No one who had anything to do with the organization and planning of the shoot in its early years fully realized the many benefits that the association, the various police agencies and the individual officers would receive from it. The shoot has resulted in steadily increasing attendance at the convention where problems confronting all law enforcement agencies are discussed. The shooting ability of the officers who frequently need their side arms to protect life and property has greatly improved, as shown by the higher scores turned in at the conclusion of each successive shoot. It has promoted a friendly rivalry between officers individually and between cities which send teams to participate.

Competition for Everyone

One of the popular aspects of the shoot is the fact that there is a place for every shooter in the tournament regardless of his ability or the size of the department by which he is employed. In addition, every shooter and every team of shooters, regardless of their classification based on past performances, have an opportunity to win prizes or trophies in that classification, and it is also possible for them to win the individual State championship and the State team championship.

The several matches fired are as follows:

MATCH No. 1. *Free For All.*—Every registered shooter shoots in this match.

MATCH No. 2. *Classification Match.*—In this match each participant shoots in his own class—

whether master, expert, sharpshooter, marksman, tyro or unclassified—based on his total score in the grand aggregate and classification match of the preceding year.

MATCH No. 3. Team Match.—In this match each team is entered by classification and the classification of the team as a whole is determined by an average of the individual classifications of the four shooting members of the team. By using this system teams from smaller departments with limited personnel to form a team find themselves competing against teams of similar size and ability, and at the same time it is still possible for a team shooting in a low classification to “get hot” on the day of the shoot and not only sweep its own class but also win the State team championship.

MATCH No. 4. Nonteam Member Match.—This match provides a shooter who is not a member of a team with an opportunity to shoot in at least three matches which is necessary for compilation of grand aggregate and classification scores.

MATCH No. 5. Grand Aggregate, Classification and State Championship.—Actually match No. 5 is not a shooting match. It is here that the individual State Champion as well as the winners in the several classifications are determined. As shown above, each participant shoots in three matches. His individual scores in the three matches are totaled and high man is State Champion for the year of the Minnesota Police and Peace Officers Association. In the same way the individual winners in each of the several classifications are determined.

FBI Practical Pistol Course.—For the past 6 years the FBI Practical Pistol Course has been a regular part of the shoot and prizes are given for this event also. This match has increased in popularity to such an extent that in the future it will be necessary to have two lanes in operation continuously.

Rules and Regulations

Rules governing the shoot are formulated by the shoot committee elected by the convention. Each year temporary members of the shoot committee are appointed from the host city for the convention. The present rules are the results of the experience gained in past shoots and reflect the desires of the participating members. For the information of any associations desiring to promote a similar tournament the following is a summary of some of the pertinent rules and regulations.

FEBRUARY 1953



Trailer loaded for the convention.

Shoot Officials.—A range officer, squadding officer and scoring officer will be in charge of the entire shoot. All complaints must be registered with the range officer.

Range.—Twenty-five (25) yards.

Targets.—Standard American twenty-five (25) yard time and rapid fire targets. All targets furnished by the association.

Arm.—Any revolver, calibre .32 or larger, as sold by the manufacturer provided that for the purpose of suiting the grip to the hand of the user it may be taped and a small block may be fitted behind the trigger guard. Any open sights may be used. Barrel length will not be greater than 6½ inches. Automatic pistols are barred.



The Practical Pistol Course.



Behind the firing line at Moorhead.

Ammunition.—Any. Arms and ammunition will be furnished by the competitor.

Classification of Shooters.—Each participant is classified according to his score in the last preceding match in which he participated. Those who have not competed since 1946 are automatically classified as tyro or unclassified.

Classification

Method of Classification is as follows:

Classification	Score	Average
Master-----	279 and over	93.0 and over
Expert-----	264-279	88.0-92.99
Sharpshooter-----	249-264	83.0-87.99
Marksman-----	180-249	60.0-82.99
Tyro (unclassified)-----	below 180	below 60.0

Timing.—Each match consists of 30 shots, 10 each slow, time and rapid fire.

Slow: Two and one-half minutes for each five shots.

Time: Twenty seconds for each five shots.

Rapid: Ten seconds for each five shots.

All other rules governing the shoot are designed to contribute to the smooth operation of the tournament and the safety of all spectators and participants. In general the rules conform with rules



Scoring the targets.

pertaining to any organized pistol or revolver match as well as those of the National Rifle Association.

Awards Made Same Day

Preparations for the shoot begin in earnest about 2 days prior to the convention with the erection of the range at a site previously selected by the host department. The shoot goes ahead on the date scheduled regardless of weather. While the shooting goes on the official scorers and tabulators maintain a current standing list so that at the end of the day all matters pertaining to the shoot are completed and the rewards can be presented at the banquet that evening. No cash or merchandise prizes are given. Trophies and medals are presented to the individual and team champions as well as the winners in the various classifications in each match.

Wyoming Patrol

(Continued from page 11)

The value of radio to any organization such as the Wyoming Highway Department is both tangible and intangible. For instance, we can tell exactly how much one radio costs per unit, per vehicle mile, per month or about any other way desired but we cannot evaluate its worth in any similar monetary manner. What is the value of a life which is saved by getting the patient to the hospital in time? Or the life which may have been saved by prompt seizure and arrest of a dangerous drunken driver? How much money is saved through quick apprehension of a car thief, a bank robber, or an escaped convict? How can you place a value on the time saved by the public when a road blocked by a washout or a snowslide is opened for travel even one hour earlier than it would have been without the use of radio? The issuance of daily road condition reports, now made twice daily by the Wyoming Highway Department, undoubtedly saves many an unnecessary trip and uncomfortable delay, but how much? How much does an individual profit by knowing that a certain mountain pass is passable or impassable? We of the Wyoming Highway Department do not know these answers but we do know that these services are needed and desired by the public. We feel that our radio expenditures constitute money well spent.

A Good Range at Low Cost

The Greensboro, N. C., Police Department recently completed a new firearms range which demonstrates the fact that an installation of this kind need not be expensive. By doing a great part of the work themselves, Chief Jeter L. Williamson and other officers of the Greensboro department saved thousands of dollars on a range which visiting police officials have described as a \$10,000 layout and one of the best in North Carolina. The entire construction job cost approximately \$2,000 in actual cash.

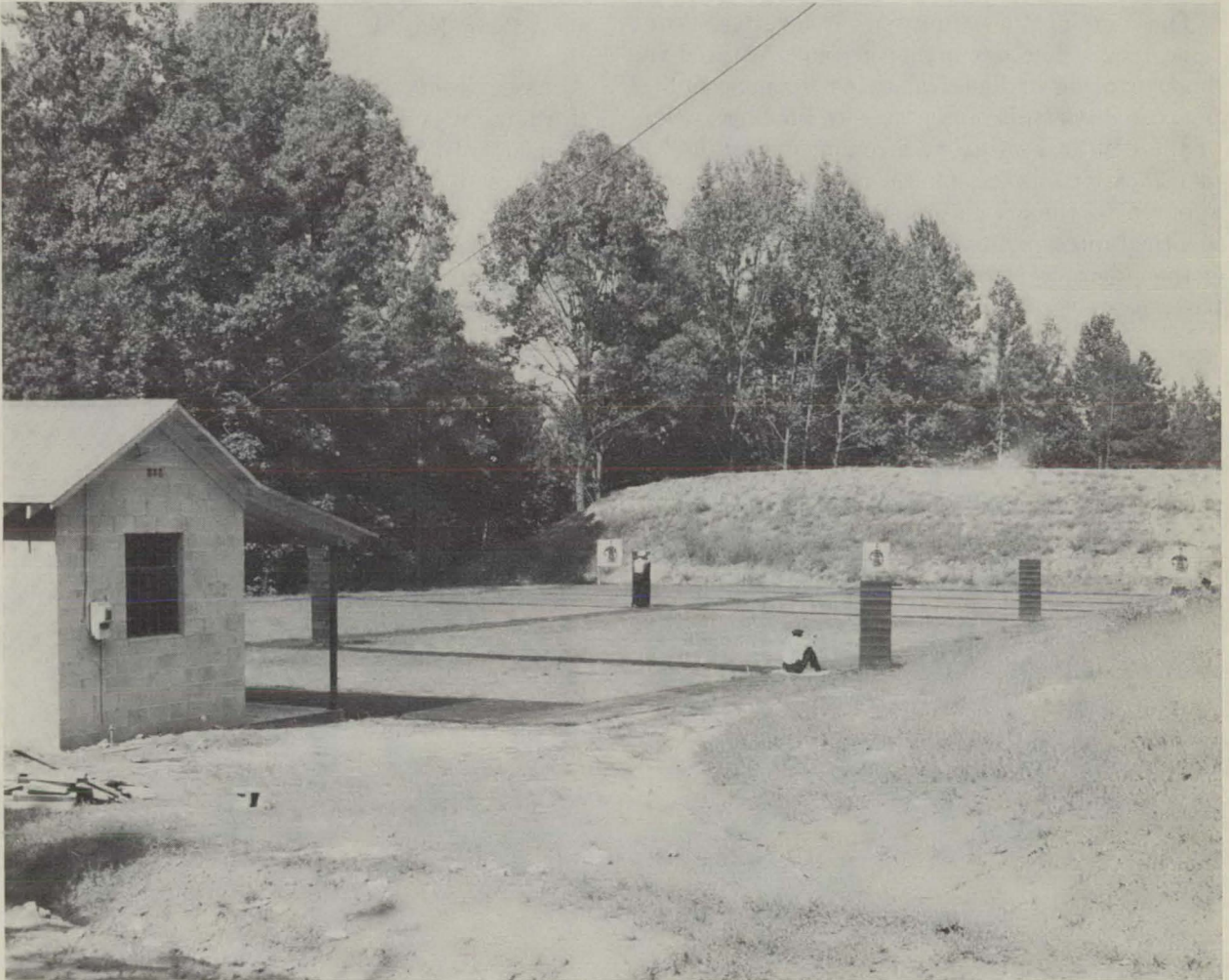
The range was constructed on a 90-foot turfed field nestled in a tree-lined area adjacent to the Greensboro Police Clubhouse. It is laid off for firing at 7, 15, 25, 50, and 60 yards with asphalt runways at each of these distances, as well as asphalt strips at either side and the center running the entire distance of the range. Barricades

have been placed at the 50- and 25-yard lines.

A 20-foot wall of earth or backstop at the far end of the range catches all slugs from the firing and insures against any stray bullets getting beyond that point. There are 11 firing positions across this bank for silhouette target firing and 22 positions for bull's-eye firing.

In addition to the firing field, the range includes a cinderblock building for storing arms, reloading shells and other work incidental to regular target practice.

Officers of the department donated their off-duty time to help level the ground, build the huge backstop, turf the banks, provide a water supply and set up the firing positions. They also assisted in building the storage and reloading house and did a hundred and one odd jobs necessary to the construction of the range.



Greensboro's new pistol range.

IDENTIFICATION

Those Fingerprints of Identical Twins Are Not Identical!

A recent newspaper article receiving Nation-wide circulation indicated that identical twins had been found with identical fingerprints. The widespread circulation of this completely erroneous story has attracted considerable attention and a number of communications have been received questioning its accuracy. As an indication of the significance that is attached to such a statement, one law enforcement officer said a defense attorney indicated his intention of introducing this article in an effort to question the veracity of an identification based on fingerprint comparisons.

The original story appeared in the latter part of June 1952. The newspaper account featured the fingerprinting of identical twins for noncriminal purposes. Certain similarities in the fingerprints of the identical twins were commented on by the identification officer. On the basis of his remarks, apparently, the article stated that the twins have identical fingerprints. The reporter said the odds against identical twins having identical fingerprint patterns were 1,750,000 to 1, according to statistics

furnished by the FBI. No statement of this nature has been made or authorized by the FBI.

Copies of the fingerprints of these twins have been secured, and an examination of the classification discloses that both have the same primary and secondary classifications, but that all other divisions of the classification formula differ. The complete classification of the twin's fingerprints is as follows:

(Twin No. 1)	11	<i>O</i>	25	<i>W</i>	<i>IMO</i>	16
		<i>S</i>	27	<i>W</i>	<i>OOI</i>	
(Twin No. 2)	16	<i>O</i>	25	<i>W</i>	<i>IOO</i>	18
		<i>M</i>	27	<i>W</i>	<i>IOO</i>	

Even from a comparison of the classification formula, it is obvious that the fingerprints differ. The key of twin No. 1 is 11 while the key of twin No. 2 is 16. The major in the first instance is *O* over *S* and in the other *O* over *M*. The secondaries differ in both the numerator and denominator, and the final of the first twin's classification is 16 while the second has a final of 18.



Figure 1.



Figure 2.

The twins do have the same type of fingerprint patterns in corresponding fingers and this causes the primary and secondary portions of their fingerprint classification to be similar. Of course, it is not unusual for different persons to have the same basic fingerprint classification formula.

An enlargement of the left index finger of twin No. 1 is shown in figure 1. It is a whorl type pattern with an outer tracing.

Figure 2 illustrates the left index finger of twin No. 2. The pattern type in this instance is also a whorl, but the tracing is inner. Besides the fact of the difference in the tracings and the ridge detail even the general characteristics such as the shape of the whorls show that the individual fingerprints are not identical.

The absolute proof of the identity of fingerprints can only be established by the comparison of the ridge detail of the individual fingerprint impressions. The ridge detail consists of ending ridges, dots, fragmentary ridges, and bifurcations or islands formed by the ridges. The position of these ridge characteristics from the focal points of the particular finger being examined and their position with regard to each other are also considered.

It is hoped that this article will enable police officers to correct the mistaken ideas concerning the fingerprints of these twins.

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Applicant Fingerprints

On December 19, 1951, a set of finger impressions was received by the FBI from the United States Coast Guard, through the Civil Service Commission, for an individual seeking a position as a shipfitter.

Although his application indicated that he had never been arrested, a search in the Identification Division criminal files resulted in the finding of 10 identical prints, each indicating a criminal charge.

At the age of 13 this individual was arrested on a charge of breaking and entering and was sentenced to an industrial school for boys until he reached 21. After release, he was arrested at various times on charges of assault, robbery, larceny, and burglary.

This is a typical example of many lengthy criminal records disclosed through a search of the fingerprint files upon the submission of applicant fingerprint cards.

Letters From Norway

In early December 1951, the FBI received a letter from a resident of Norway requesting assistance in locating his brother who had come to the United States about 30 years ago. He advised that information received from a friend in Minneapolis indicated that his brother had worked in the restaurant business in Minneapolis, Minn., for many years and had moved to Chicago, Ill., 2 or 3 years ago. His request to the FBI was prompted by the desire of his 85-year-old mother to see her son.

The inquirer was advised that the last information available regarding his brother was received in 1940 when the brother registered as an alien, giving a Chicago, Ill., address. He was further advised that a missing person notice was being placed in the Identification Division files and that copies of his letters were being sent to the Chicago Police Department and to the United States Immigration and Naturalization Service.

In less than 2 weeks the Chicago, Ill., Police Department advised that they had located the missing brother in Chicago where he had been employed for the past 15 years. The FBI subsequently received another letter from Norway which stated, "I am very much obliged for your kindness of doing all this work that you have had to find my 'lost' brother."

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Booklet on Patterns

A booklet on Questionable and Interesting Fingerprint Patterns has been prepared by the Identification Division of the FBI and is now available to police officers. The booklet contains photographs of 43 patterns presenting a classification problem, with a statement under each photograph on how that particular pattern should be classified. Officers desiring a copy for study and reference should direct their requests to the Director, Federal Bureau of Investigation, U. S. Department of Justice, Washington 25, D. C.

WHITE SLAVE TRAFFIC ACT

Interstate transportation of a female for prostitution, debauchery, or other immoral purposes is prohibited by this statute which is under the FBI's investigative jurisdiction. The transportation of a girl under 18 years of age on a common carrier for similar immoral purposes carries a 10-year penalty.

CRIME PREVENTION

The age-old and universal enjoyment of fishing has been successfully put to new use in Longmeadow, Mass., as a means of strengthening police and community cooperation.

Several years ago Chief of Police George A. Yarsley, Jr., organized one of the first police baseball leagues as a means toward building understanding and good will between the police, the boys of the town, and their parents. The baseball activity has since become a part of the town recreation program which developed from the start given it by the police chief.

But Chief Yarsley was not satisfied. Seeking a similar but broader type of police-sponsored youth program for 1949, he discussed the need with a local resident (by chance a public relations consultant) who shared his interest in a progressive



Chief George A. Yarsley, Jr., (left) and a game warden checking weight and size of the fish caught by one participant.

Longmeadow Police Sponsor a Fishing Club for Children

police-youth venture. In the midst of their conversation, the friend exclaimed: "Fishing! Every kid likes to fish!"

The idea had all the objectives sought by Chief Yarsley—a sure-fire attraction for youngsters, something which would include both boys and girls, could be carried on during the spring, and would have carry-over values of training for youth.

Organization and Planning

Given the idea, Chief Yarsley carried through the organization and planning which resulted in a Longmeadow Junior Fishing Club with more than 400 members. His first step was to organize a citizens' committee to cooperate with the police department. The assistance of the Park Commission chairman, a woman member of the local Rod and Gun Club, a newspaper columnist whose specialty was fish and game news, and the public relations consultant who first came up with the idea was obtained. All were ardent disciples of Isaac Walton. The function of this committee was to work out policies and rules and regulations, as well as to give public endorsement to the plan.

The next step was to arrange a public meeting of parents and children. The school department cooperated in the distribution of notices about the mass meeting to every pupil and in sending the announcement to every home. The meeting took place in April, just a few weeks before the opening date of the project. More than 400 attended, including fathers and mothers, boys and girls. Those attending were entertained with motion pictures and then Chief Yarsley presented to the audience the proposal for a Longmeadow Junior Fishing Club.

At this point, the matter of organization was most important and contributed largely to the success of the project. Through the cooperation of the citizens' committee, the personnel of the police department and a number of auxiliary police, the necessary details of signing up, issu-



Waiting for a nibble.

ing memberships, and other paper work were speedily dispatched. Every child from 7 to 15 years of age, without exception, was eligible for membership without cost.

The registration procedure was carefully organized. Four tables manned by committee members or the auxiliary police, with a regular member of the department supervising each table, were set up. In a matter of only a few minutes each parent and child was interviewed, signed up, and the enthusiasm for the idea was in no way lessened by any delay at the end of the meeting.

Sportsmanship Stressed

Considerable newspaper publicity had already been obtained. Following the public meeting additional announcements of the final plans for junior fishing were published. These plans followed all the basic regulations that each adult licensed fisherman must follow and included an appeal at the youngster's level for sportsmanship and for care in avoiding accidents.

A sportsmen's creed and rules and regulations for the club were printed. Each member received a copy. On the days when fishing is permitted a member of the police department and assistant wardens picked from the club make a check of membership cards or "licenses" and see that the regulations of size and number are obeyed.

A Stocked Pond

A small pond was located and interested citizens generously stocked it with trout and other fish. The Massachusetts Division of Fisheries and Game promised an allotment to supplement the supply if needed. Contributions for prizes were secured as a means of stimulating interest.

Opening day was on April 30, 1949. On that occasion, more than 400 boys and girls lined themselves almost elbow to elbow around the small pond in the Longmeadow Park system to enjoy the fishing. The occasion aroused widespread publicity, a large attendance of parents and gave the junior fishing project a start which kept the club going throughout the spring and until the club season ended late in June.

All of this started in February 1949. Since that time the project has demonstrated its exceptional value and success and is something which can easily be adopted in almost any locality, Chief Yarsley declares.

Craving for Cheese Betrays Grocery Burglar

A taste for good cheese in some circles might mark a man as a gourmet, but in North Carolina it led to a sentence in the penitentiary.

Sheriff J. Charles Rumble of Iredell County, Statesville, N. C., was called at 7:40 one morning to investigate a burglary of a roadside grocery store. Sheriff Rumble, while searching for clues, found that someone had stopped for a snack of cheese and milk while burglarizing the store. He had eaten part of the cheese and left the rest under the counter.

The cheese was approximately 3½ inches square and about 1½ inches thick, showing at a glance that someone with very irregular, long and pointed lower teeth had bitten into it and left pronounced teeth marks. There were also some latent prints on the glass used in consuming a quart of buttermilk and a quart of sweet milk.

Inquiries by the sheriff and his deputies in the vicinity turned up the name of a suspect whose teeth fitted the description from the marks in the cheese. The suspect was apprehended less than 18 hours later and had in his possession \$285 worth of goods which had been stolen from the grocery store. The fingerprints of the suspect and those found at the scene of the crime were compared and found to be identical. An arrest record was found when the subject's fingerprints were submitted to the Identification Division of the FBI.

The subject entered a plea of guilty in local court after having been confronted with the above-mentioned evidence and was sentenced to serve 1 year in the North Carolina penitentiary.



OTHER TOPICS

The average citizen today thinks of rustling as something which occurred in the old West when organized gangs on horseback swooped down with six-guns blazing and drove off the cattle to rebrand and sell them as their own. Cattle rustling seems no closer today than the western film which dramatically portrays the criminal pursuits of the cattle rustler of a bygone era.

Though it takes place with less drama, cattle rustling is still prevalent and takes a heavy toll in its annual loss to the rancher. The modern rustler drives up quietly in a pickup truck, cuts the wires of the fence with a handy pair of wire clippers and loads one or two animals into his truck. He then departs as noiselessly as he arrived, often without leaving so much as a tire tread mark as a clue to his identity. The fast trucks, paved highways, and distant markets available to the cattle rustler today have changed his procedure and technique from that of the early western rustler—but it makes him no less a problem. Armed with a forged bill of sale the modern rustler seeks the safety of out-of-State sales, depending upon speed and distance to save him from justice.

Legislation

As the techniques of the rustler changed, so did society's efforts to control him. Numerous State laws pertaining to cattle thievery were already on the books, but, in order to cope with the rustler who sought to peddle his wares in out-of-State markets, Congress enacted a statute in August of 1941 making it a violation of Federal law to knowingly transport stolen cattle in interstate or foreign commerce. This statute, formerly known as the National Cattle Theft Act, now called the Interstate Transportation of Stolen Cattle Statute, provides a maximum penalty of a \$5,000 fine and 5 years' imprisonment, or both, for persons convicted of a violation. The statute further prohibits the receiving, concealing, storing, bartering, buying, selling, or disposing of cattle moving in interstate or foreign commerce which are known to be stolen.

Cattle Rustling— An Old Crime Revived by New Techniques

Under the terms of the act, cattle is defined as one or more bulls, steers, oxen, cows, heifers, or calves, carcass or carcasses thereof.

Federal Jurisdiction

Responsibility for the enforcement of this statute has been assigned to the Federal Bureau of Investigation. It allows the facilities of the FBI to be utilized in tracking down the rustler who crosses State or National borders. This in no way changes the responsibility of local authorities to investigate cattle thefts. It merely allows the Federal Government to assist in curbing cattle rustling carried on in interstate commerce. Before the FBI may enter the case, there must be proof that the stolen cattle have been moved across a State line.

Any evidence of the interstate or foreign transportation of stolen cattle should be brought to the attention of the FBI at once. A delay in making the information available may materially affect the chances of making a successful investigation.

Identifying the Cattle

The major problem faced by law enforcement officials investigating violations of this act is the identification of stolen cattle. In some sections of the country a system of branding cattle has discouraged large-scale thefts; the brands make it easier for the investigators to identify stolen cattle even if the brands have been altered, as they sometimes are. Through examinations in the FBI Laboratory it is possible to detect an altered brand and to make positive identifications.

This problem of identification may be further complicated by the fact that the identifying characteristics of cattle may be easily altered through slaughtering and butchering. The FBI Laboratory, however, has provided valuable assistance in establishing identity through scientific examinations. The use of forged bills of sale and other documents in connection with the sale of stolen cattle lends itself to technical examination.

Disposing of Stolen Cattle

Ordinarily stolen cattle are disposed of at auctions, slaughterhouses, and stockyards; in some instances they are "fenced" by retailers who operate markets and can handle small quantities of beef without being easily discovered. This type of operation becomes more prevalent during periods of meat shortages and provides part of the "black market" outlet for stolen goods. It is also the outlet used in many of the on-the-spot slaughterings and butcherings with the hide, hoofs, and head of the stolen cattle being buried near the scene.

Time Is of the Essence

Another of the principal difficulties confronting the investigating officer is the fact that he may not learn of the theft until some time has passed. Often the rancher will not discover his loss until the annual roundup in the spring or fall. By this time the thieves have several weeks' or months' head start and the trail is cold. In instances of small cattle raisers where only one or two cattle have been taken, the owner may first believe that they have only strayed away from the rest of the herd. Any delay in reporting a theft, no matter how slight, works to the advantage of the rustler and makes law enforcement's tasks more difficult.

Ingenious Schemes

Past investigations under this statute have revealed many ingenious schemes used by cattle rustlers. In one instance two brothers, finding that a few cattle from a neighboring ranch had strayed into their pasture one day, decided that possession was more than nine points of the law and proceeded to corral the strays and change the brands to their own. In order that future straying of the neighboring herd would be made easier, one of the brothers lifted the fence between the two ranches and permitted half a dozen steers to come through. They met the same fate as the previous strays. The brothers repeated this process several times and netted, in all, a total of 109 cattle. Disposal of these "strays" was made by shipping them by truck to a rancher some 250 miles to the east in another State. Subsequent investigation revealed that the brothers made six trips interstate transporting these stolen cattle.

In addition to the cases where large numbers of cattle have been involved, incidents of isolated theft have been prosecuted under the Interstate Transportation of Stolen Cattle Act—cases in which only one cow or one calf was stolen and transported across the State line. In one case investigated by the FBI, the rustlers, operating under cover of darkness, drove along the highways "hunting" cattle grazing on the shoulders of the road. These isolated strays were loaded into a truck and transported out of the area. By dawn the rustlers were many miles away. The cattle were taken to a barn in another State where they were kept until they could be disposed of. The rustlers were subsequently identified, apprehended, and sentenced to the penitentiary.

Information and Assistance

Law enforcement officers who are investigating cattle thefts may look for assistance from stockmen, stockmen's associations, brand inspectors, packing house employees, and forest rangers, among others. If the facts indicate that stolen cattle have been transported in interstate commerce, it is requested that the FBI be notified immediately. In any case, either local or Federal, the facilities of the FBI Laboratory are available for scientific examination of evidence.

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WANTED BY THE FBI

NICK GEORGE MONTOS, with aliases: **Arthur Linwood Brown**, **Dan Robert Hudson**, **Nick Montes**, **Nicholas Moutos**, **James Regan**, **J. S. Rosen**, **J. R. Rubin**, **Henry Wilson Swilley**, **Roy Valesco**, **Nick Watley**, "Little Nick," and others.

Unlawful Flight to Avoid Prosecution (Robbery)

During the afternoon of August 11, 1951, about 7 miles west of Alma, Ga., three hoodlums accosted and robbed a 74-year-old man and his 65-year-old sister. The elderly man was brutally beaten about the head with a gun. The clothing of the woman was ripped and torn as the bandits seized more than \$1,000 in cash which she was carrying on her person. Then the robbers lashed the victims together, hand and foot, and sped away in an automobile.



Nick George Montos.

The woman loosed her bonds and notified a local law enforcement officer. Members of the Georgia State Patrol gave chase. As they entered Waycross, Ga., two of the robbers jumped from the fleeing automobile and escaped on foot. The escape vehicle smashed up and the driver was apprehended. In the wrecked car were spare license plates from Florida, Georgia, and Alabama. The two bandits who fled reportedly were carrying sidearms and a machine gun.

One of the two hold-up men who fled was subsequently identified as Nick George Montos. On August 11, 1951, the Bacon County, Ga., sheriff's office obtained State warrants charging Montos and his companion with armed robbery and robbery by force. When information was received alleging that Montos had fled from the State of Georgia, a complaint was filed before a United States Commissioner at Waycross, Ga., on August 23, 1951, charging Montos with unlawful flight to avoid prosecution on the charge of robbery.

Previous Offenses

Montos began his criminal career as a juvenile. He has reportedly admitted receiving a 3 months' period of probation at Tampa, Fla., in 1930 for possession of stolen property. In November of 1934 he was convicted for violation of the National Motor Vehicle Theft Act and sentenced to serve 18 months in a Federal reformatory. He served time on this conviction at the United States Industrial Reformatory, Chillicothe, Ohio, and at the Federal Reformatory Camp, Petersburg, Va.

The sheriff's office at Miami, Fla., arrested Montos in July of 1936, on a charge of possession of burglary tools. After a short-lived escape from jail, he was sentenced on October 15, 1936, to serve

1 year at the State penitentiary at Raiford, Fla. While serving another sentence after conviction for burglary and grand larceny, Montos escaped from a county road gang in Birmingham, Ala., on August 17, 1938, but was recaptured and returned to custody.

On December 14, 1938, Montos began a 7- to 10-year term at Kilby Prison, Montgomery, Ala., following conviction and sentencing on a charge of receiving and concealing stolen property. While in prison he spent several months working in the shop manufacturing automobile license plates. The skill and proficiency acquired on this job have allegedly been utilized by Montos in his subsequent activities.

Montos escaped from Kilby Prison on October 20, 1942. A State warrant was obtained by Knoxville, Tenn., law enforcement officials charging Montos with participation, along with several companions, in a series of burglaries at Knoxville which netted a large amount of jewelry. On February 26, 1943, a Federal complaint filed at Knoxville, Tenn., charged Montos with unlawful flight to avoid prosecution for the crime of burglary. He was apprehended by FBI agents at Chicago, Ill., on June 21, 1943, and returned to Kilby Prison to complete his term.

In the early morning hours of February 24, 1944, Montos, along with four fellow inmates, set up a ladder and scaled the prison walls and escaped. In his flight from justice Montos reportedly sought refuge in his favorite haunts in the vicinity of Chicago, Ill. Using an alias, he posed for a short time as a used car salesman. In addition, he was suspected of being a participant in numerous burglaries which occurred in the vicinity of Knoxville and Chicago.

In a Federal complaint filed at Knoxville, Tenn., on May 12, 1945, Montos was charged with unlawful flight to avoid prosecution for the crime of burglary. His unwarranted freedom and sham respectability as a salesman were halted with his apprehension by FBI agents and the Chief of Police at Broadview, Ill., on May 13, 1945. Montos was turned over to Illinois authorities to be held for the State of Alabama. He was released on \$10,000 bond, awaiting extradition proceedings to return him to Alabama.

On September 6, 1945, Montos, with an accomplice, attempted to burglarize the United States Post Office at Charleston, Ill. Convicted on this violation, he was sentenced on September 7, 1946, in Federal Court at Danville, Ill., to serve 3 years

and to pay a fine of \$1,000, sentence to run concurrently with his sentence at Kilby Prison.

Following his release from Kilby Prison in 1949 Montos returned to Birmingham, Ala., where he allegedly teamed up with another member of his gang in selling car-cleaning products and wiping rags to numerous automobile dealer concerns. Shortly thereafter there was a flurry of safe-crackings and burglaries of automobile sales firms in northern Alabama. The "salesmen," Montos and his associate, were the main suspects. Law enforcement officers suspected that these two capitalized on their business calls on car dealers to select victims for their prowling activities. Montos was arrested at Anniston, Ala., on December 24, 1949, and charged with burglary of an automobile company. He plead guilty on September 5, 1950, to a charge of possession of burglary tools and was fined \$500.

He was indicted for burglary in Coweta County, Ga., in September of 1950 but jumped his bond. Arrested at Hattiesburg, Miss., in March 1951, on a charge of burglary, he was again convicted. However, in December 1951, after his conviction was upheld by the supreme court of Mississippi, he failed to appear for confinement and forfeited another bond.

Background

It is reported that Montos is an experienced gambler and on several occasions, while a fugitive, has endeavored to support himself in this fashion. He allegedly prefers cafes and taverns catering to small time gamblers and numbers racket games. He likes Italian food and has been known to tip waiters liberally. He is an habitue of night clubs. While hiding out in Chicago, Ill., in 1943, he allegedly became a part owner of a night club there. It has been reported that in the past he owned and was very fond of a bulldog.

Montos is said to be regarded as a skilled safe-cracker. He has been described as having a highly professional technique which can be recognized as a trade-mark of his gang. Very seldom are Montos and his cohorts surprised on a job, either by intruders or by lack of booty. A specialist in casing the establishment to be victimized, Montos assumes personal control of the planning, with special attention being given to entry and exit. It has been reported that he has a penchant for entering a store through a skylight or transom. The knob of the safe is expertly knocked off, the combination is cleanly punched out and the

safe itself is left unscarred. Departure is usually made through one of the normal means of exit.

His repertoire of professional tricks is alleged to include his own special method for dismantling tear gas type safes. Montos is described as having a "big shot" complex coupled with a personal mania for safe burglary and jealously seeks to protect his reputation as an "expert safecracker."

In addition to being a Federal fugitive charged with Unlawful Flight to Avoid Prosecution, Montos is wanted in Georgia for participation in the armed robbery which included a vicious assault. This offense, according to the solicitor general of the State of Georgia, is punishable in that State by a maximum penalty of death. He is also being sought by the Georgia authorities for the burglary for which he was indicted at Coweta County, Ga., in September of 1950.

Montos is armed and should be considered dangerous.

His description is as follows:

Age	36, born November 8, 1916, Tampa, Fla. (not verified).
Height	5 feet, 5 inches.
Weight	140 pounds.
Build	Small.
Hair	Black.
Eyes	Blue, wears glasses occasionally.
Complexion	Ruddy.
Race	White.
Nationality	American.
Occupations	Laborer, painter, bookbinder.
Scars and marks	Six-inch cut scar outer-left elbow, long, dim scar on back of left little finger, 1/2-inch scar on right side of forehead, 3/4-inch blue diagonal scar on right temple, scar on left eyebrow, numerous skin blemishes and marks on face.
FBI No.	851,030.
Fingerprint classification	11 S 1 R 100 8 M 9 R IIO

Any person having information which may assist in locating Nick George Montos is requested to immediately notify the Director of the Federal Bureau of Investigation, United States Department of Justice, Washington 25, D. C., or the special agent in charge of the Division of the FBI nearest his city.

Correction

In the article entitled "Building and Operating Your Police Library," December 1952, issue, page 10, the title "Standard Catalog for Police Libraries" should read "Standard Catalog for Public Libraries."

Questionable Pattern

FINGERPRINTS



A

This month's pattern is classified as a tented arch. The general appearance gives the impression that the pattern is a loop, but upon examination no ridge can be found which enters into the pattern on one side, recurves, and passes out the same side from which it

entered. Ridge "A" is the innermost ridge which appears to make a recurve, but it passes out of the pattern on the opposite side from which it enters, so it does not meet the requirements of a looping ridge.